University of Botswana
Department of Mathematics
MAT391 Engineering Mathematics III
Tutorial Exercises 1 - Laplace Transforms

Complete the following table with Laplace transform of the given functions.

No.	$f(t)$	$F(s) = L[f(t)]$
1.	$f(t) = \sin 3t$	
2.	$f(t) = \cos 2t$	
3.	$f(t) = e^{4t}$	
4.	$f(t) = 6t^2$	
5.	$f(t) = \sinh 2t$	
6.	$f(t) = \cosh 4t$	
7.	$f(t) = e^{3t}\cos t$	
8.	$f(t) = 5t^2 - 7e^{-2t} - 9$	
9.	$f(t) = 3e^{-4t} - 5e^{4t}$	
10.	$f(t) = e^{4t}\cos 2t$	
11.	$g(t) = t^3 + 4t^2 + 5$	
12.	$f(t) = \dfrac{\sinh 2t}{t}$	
13.	$l(t) = \dfrac{e^{-t} - e^{-2t}}{t}$	
14.	$f(t) = t^2 \sin \pi t$	